TO NEWSORY.

CROSS SECTIONS

BORING LOGS

NCDOT LEGEND

TITLE SHEET

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DESCRIPTION

SHEET NO.

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STATE OF NORTH CAROLINA

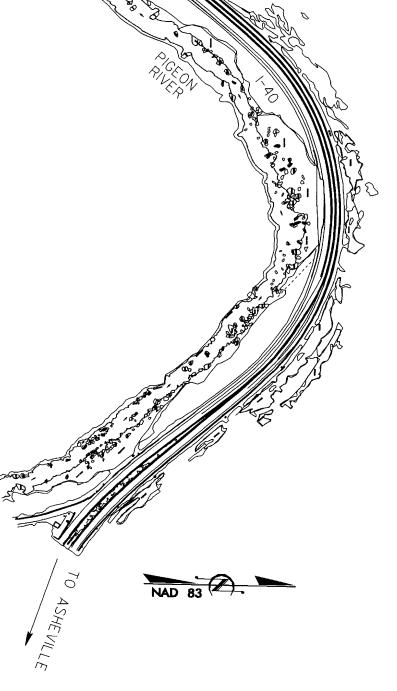
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS GEOTECHNICAL UNIT

## SUBSURFACE INVESTIGATI

STATE PROJECT\_112.1044010\_ I.D. NO. F.A. PROJEC

DESCRIPTION COUNTY\_ **HAYWOOD** 1-40 BETWEEN MILE MARKERS 3 AND



INVESTIGATED BY\_ CHECKED BY D. T. HERING, B. D. WORLEY VARIOUS PERSONNEL

D. T. HERING FLORENCE & HUTCHESON TRIGON ENGINEERING

SUBMITTED BY.

SEVE

LILLING OF CONTROL OF THE CARD THE WAY

DRAWN BY: D. W. FIELDS, A. N. KARPA, T. T. WALKER, D. T. HERING

## CAUTION NOTICE

N.C.

112.1044010

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THE SUBSUPPACE INFORMATION AND THE SUBSUPFACE INVESTIGATION ON WHICH IT IS BASED WAS MADE FOR THE PURPOSE OF STUDY, PLIMWING AND DESIGN, AND NOT FOR CONSTRUCTION OF PAY PURPOSES. THE VAROUS FELD BORNE LOSS, ROCK CREES, AND SUIT TEST DATA AVAILABLE MAY BE REVIEED ON INSPECTED IN RALEAH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL UNIT O 1993 257-0088, NETURE THE SUBSUPFACE PLANS AND REPORTS, NOR THE FIELD BORNO LOSS, ROCK CORES, OR SOIL TEST DATA IS PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARES ARE BASED ON A COTICHMENT, INTERRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT RECESSARY REFLECT THE ACTUAL SUBSURFACE CONDITIONS RETWEEN BORNOS OR BETWEEN SAMELD STRATA WITHIN THE BORENOLE. THE LABORATIONY SAMPLE DATA AND THE N SITU UNFALCE TEST DATA CAN BE RELED ON ONLY TO THE DECREE OF RELIABULTY INHERITA AND THE SUBSURFACE THE COSSERVED MATER LEVELS OR SOIL MOSTURE CONDITIONS INDICATED IN THE SUBSURFACE MYSTIGATIONS AND ASSESSED AT THE TIME OF THE INVESTIGATION THESE WATER LEVELS OR SOIL MOSTIFIEE CONDITIONS MAY CONSIDERALLY WITH THE ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BODGE OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMENTED ONLY AND IN MANY CASES THE FINAL DESIGN BY LIST ON DETERBINE, FOR BODING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN MECHANITOR ON THE SPROMERT, THE DEPARTMENT DOES NOT WARRANT OR CURRANTEE THE SUFFRENCY OR ACCURACY OF THE INVESTIGATION AND EACH NOT THE MITERIANT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BODGE OR CONTRACTOR IS CAUTIONED TO MAKE SUCH MECHANICATED ON THE STEED THAT DOES NOT THE FOR CONTRACTOR SHALL HAVE NO CLAM FOR ADDITIONAL CONDITIONS OF DE ENCOUNTERED ON THAS PROJECT. THE CONTRACTOR SHALL HAVE NO CLAM FOR ADDITIONAL CONDITIONS OF DE ENCOUNTERED ON THAS PROJECT. THE FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE OFFERNO FROM THOSE NOCATED IN THE SUBSURFACE INFORMATION.

	DIFFICULT TO BREAK WITH HAMMER. SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE; SAMPLE BREAKS ACROSS GRAINS.	INDURATED	VANE SHEAR TEST	OTHER TRUCONE 3% TC	OTHER	(TAN, RED. YEL-BRN, BLUE-GRAY) D DESCRIBE APPEARANCE.		DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED., Y MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE	DESCRIPTION MODIFIERS S
	REAKS EASILT WHEN HIT WITH HAMMER. RAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE;	INDURATED 6	HAND AUGER	TRICONE 2% . TUNGCARB	OTHER CME-55		COLOR		
ROADWAY EMBANKMENT: BOULDERS	TODDING WITH THEER MUREMUS GHAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE. GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE; DEFENCE FOR METAL WITH STANDING SAMPLE WITH STEEL PROBE;	FRIABLE GI		CASING X V/ ADVANCER TRICONE STEEL TEETH	PORTABLE HOIST	SLIGHT MEDIUM HIGH	6-15 16-25 26 OR MORE		HIGH PLASTICITY
	HAPDENING OF THE MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC.	OCKS, INDURATION IS THE	X -NO AND NX	TUNGCARBIDE INSERTS		DRY STRENGTH	PLASTICITY INDEX (PI)		NONE ACTIO
NOTES:	THICKLY LAMINATED THINLY LAMINATED NDURATION	VERY CLOSE LESS THAN 0.16 FI	CORE SIZE:	8. HOLLON ANGERS		REDUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE	T T		
BENCH MARK: ALL SURVEYS DATA PROVIDED BY NCDOT LOCATION AND SURVEYS UNIT ELEVATION:	VERY THICKLY BEDDED  THICKLY BEDDED  THINKY BEDDED  OFFINITY BETDED  OFFIN	VERY WIDE NORE THAN 10 FEET NIDE 3 TO 10 FEET NOCERATELY CLOSE 1 TO 3 FEET	HAMMER TYPE;  MANUAL  MANUAL		DRILL UNITS:	SOLID; AT OR NEAR OPTIMUM MOISTURE	- MOIST - (M) SO	OPTIMUM MOISTURE	<del>   </del>
TOPSOIL (T.S.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.	TERM BEDDING	ACTURE	PRC	EQUIPMENT USED ON SUBJECT	EC	SEMISOCID, REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE	- WET - (W) SEM	PLASTIC LIMIT	RANGE <
STRATA ROCK QUALITY DESIGNATION (S.R.Q.D.) - A PERSURE OF ROCK QUALITY DESCRIBED BY.  TOTAL LENGTH OF ROCK SECHENTS WITHIN A STRATUM EDUAL TO OR GREATER THAM 4 INCHES DIVIDED BY THE  TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.	CAN BE CARVED WITH KNIFE. CAN BE EXCAVATED READILY WITH POINT OF PICK, PIECES I INCH OR MURE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY FINGERWAIL.	VERY CAN BE CARVED WITH KNIFE, C SOFT OR MORE IN THICKNESS CAN BE FINGERNALL.	VANE SHEAR TEST	- TSV	FRAC FRACTURED FRAGS FRAGMENTS MED MEDIUM			רוסטוס רואוד	1
STRATIA DE DEUMO.  STRATIA DE RECOVERY (SPEC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.	CAN BE GROVED OR GOLGED READILY BY KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SWALL, THIN PIECES CAN BE BROKEN BY FINGER PRESSURE.	SOFT CAN BE GROVED OR GOUGED RE FROM CHIPS TO SEVERAL INCH PIECES CAN BE BROKEN BY FII	- DRY UNIT WEIGHT MOISTURE CONTENT VERY	V VE		GUIDE FOR FIELD MOISTURE DESCRIPTION	-	(ATTERBERG LIMITS)	CATTERBERG
STANDARD PENETRATION TEST OFENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR B.P.F.) OF A 140 LB. HANNER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER, SPT REFUSAL IS LESS THAN 0.1 FOOT PENETRATION	CAN BE GROOVED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT. CAN BE EXCAVATED IN SWALL CHIPS TO PEICES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF THE POINT OF A GEOLOGISTS PICK.	MEDIUM CAN BE GROOVED OR GOUGED OF HARD CAN BE EXCAVATED IN SMALL POINT OF A GEOLOGISTS PICK.	- TRICONE REFUSAL - UNIT WEIGHT	TCR	CFI - CONE PENE INFILIDA I CSE COARSE  DMT - DILATOMETER TEST  DPT - DYNAMIC PENETRATIO	OF TERMS	RE - CORRELATION	3.	SIZE IN. 1
SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE.	CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE EXCAVATED BY HARD BLOW OF A GEOLOGISTS PICK. HAND SPECIMENS CAN BE DETACHED BY MODERATE BLOWS.	MODERATELY CAN BE SCRATCHED BY KNIFE HARD EXCAVATED BY HARD BLOW OF BY MODERATE BLOWS.	SAND, SANDY SILT, SILTY	SD	BT - BORING T CL CLAY	(F. SD.) (SL.)	2.0	74	₹ R
SILE - HY INTROSER DOUT OF INNEUDS HUCK OF HYPROJING LET ONLI-HEM HILIKHESS AND RELATIVELY THIN COMPREDE WITH 1715 LATERAL EXTENT, WHICH HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS	CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED TO DETACH HAND SPECIMEN.		FOST DEMETER TEST	ABBREVIATION	AR - AUGER RE	- 1	COARSE	COBBLE GRAVEL	BOULDER
SAPROLITE (SAP) - RESIDUAL SOIL WHICH RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK.	CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES SEVERAL HARD BLOWS OF THE GEOLOGISTS PICK.	HARD	: \$\frac{1}{2} \frac{1}{2}		• - SDUNDING ROD	200 270 0.075 0.053	910	SIZE 4.76	OPENING (MM)
ROCK SEGNENTS EDUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.	ROCK HARDNESS		CBR	TION OF INSTALLATION RES OF N-VALUE	ROCK STRUCTURES		RE OR GRAIN SIZE	TEXTURE	
	ROCK REDUCED TO SOIL, ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND SCATTERED CONCENTRATIONS, QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS, SAPROLITE IS ALSO AN EXAMPLE.	COMPLETE ROCK REDUCED TO SOIL, ROCK F SCATTERED CONCENTRATIONS, OL ALSO AN EXAMPLE,	DR.	DARY DINS		0.5 TO 1 1 TO 2 2 TO 4	17 e 4	STIFF VERY STIFF	SIL I-CLAY MATERIAL (COHESIVE)
	REMAINME, SAPPOLITE IS AN EXAMPLE OF BOOK MEATHERED TO A DEGREE SUCH THAT DIKE MINOR REMAINME. SAPPOLITE IS AN EXAMPLE OF BOCK MEATHERED TO A DEGREE SUCH THAT DIKE MINOR REMAINME. SAPPOLITE THAT DIKE MINOR FEMALE. TESTED, YIELDS SPT IN VILLUES < 188 BPF		Ê	DARIES	リルニルト INFERRED SOIL BOUNDARIES				GENERALLY
LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.  MOTTLED (MOT)- IRREGULARLY MARKED MITH SPOTS OF DIFFERENT COLORS, MOTTLING IN  SOILS USUALLY INDICATES POOR ARRATION AND LACK OF KNOT DRAINAGE.	<u>ES &gt; 180 BPF</u> OLORED OR STAINED, ROCK FABRIC ELEMENTS ARE DISCERNIBLE BUT UFEN TO COIL STATIC WITH ONLY EDAGMENTS OF STRONG DOCK	VERY SEVERE ALL ROCK EXCEPT DUARTZ DISC	S. S.	ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS  CORE BORING	ARTIFICIAL FIL ROADWAY EMBA	N. A.	10 TO 30 30 TO 50 >50		MATERIAL (NON-COHESIVE)
LEDGE LEDGE	all rocks except quartz discolored or stained, rock fabric clear and evident but reduced In Strength to Strong soil. In granitoid rocks all feldspars are kaolinized to some extent, some fragments of strong rock usually remain.	SEVERE ALL ROCKS EXCEPT QUARTZ DIS (SEV.)  IN STRENGTH TO STRONG SOIL.  EXTENT. SOME FRAGMENTS OF S		$\oplus$					GENERALLY
THE FIELD.  JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.	AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK, ROCK GIVES 'CLUNK' SOUND WHEN STRUCK.  IF TESTED, WOULD YIELD SPT REFUSAL		TEST BORING SAMPLE	SPT CPT	ROADWAY EMBANKMENT WITH SOIL DESCRIPTION	DARD RANGE OF UNCONFINED STENCE COMPRESSIVE STRENGTH (TONS/FT2)	PENETRATION RESISTENCE (N-VALUE)	TYPE COMPACTNESS OR CONSISTENCY	PRIMARY SOIL
	OLDRED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL TY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH	MODERATELY ALL ROCK EXCEPT QUARTZ DISC SEVERE AND DISCOLORED AND A MAJORI	OLS .	MISCELLANEOUS SYMBOLS	O-UU SPRING	NESS	ENCY OR DENSENE	P.I. OF A-7-5 ≤ L.L 3 CONSISTENC	
FARENT MATERIAL.  FLOOD PLAIN (F.P.) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY	Granitoid Rocks, most feldspars are dull and discolored, some show clay, rock has dull sound under hammer blows and shows significant loss of strength as compared with fresh rock.	(MOD.) GRANITOID ROCKS, MOST FELDSP DULL SOUND UNDER HAMMER BLI NITH FRESH ROCK.	WATER BEARING STRATA	TURATED ZONE OR		OOR FAIR TO POOR UNSUITABLE	FAIR TO POOR	EXCELLENT TO GOOD	AS A SUBGRADE
FISSILE - A PROPERTY OF SPLITTING ALDNG CLOSELY SPACED PARALLEL PLANES.  FLOAT - ROCK FRAGHENTS ON SUPERACE NEAR THEIR DRIGNAL POSITION AND DISTRIBUTED.	LORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS. SHOW DISCOLORATION AND WEATHERING EFFECTS. IN	Æ		FTER 24 HOURS.		SOILS MATTER	SOILS	D SAND GRAVEL AND SAND	
FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.	ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO 1 INCH, OPEN JOINTS MAY CONTAIN CLAY, IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR	SLIGHT ROCK GENERALLY FRESH, JOINTS (SLI) 1 INCH. OPEN JOINTS MAY CONT.	AFTER DRILLING.	GROUND WATER WATER LEVEL IN BORE HOLE IMMEDIATELY A	A		SILTY	E G	USUAL TYPES STONE FRAGS.
DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKNISE FROM NORTH.	ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN, CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY, ROCK RINGS UNDER HAMMER BLOWS IF DF A CRYSTALLINE NATURE,	VERY SLIGHT ROCK GENERALLY FRESH, JOINTS (V. SLI.) CRYSTALS ON A BROKEN SPECIM  OF A CRYSTALLINE NATURE.	SOME 20 - 35% HIGHLY 35% AND ABOVE	5 - 10% 12 - 20% >10% >20%		SOILS WITH LITTLE OR		12 N.P. 10 MX10 MX 11 HN 11 MN	PLASTIC INDEX 6 MX
DID: THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL.	ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING, ROCK RINGS UNDER HAMMER IF CRYSTALLINE.	ROCK FRESH, CRYS	Ξ.	SOILS SOI 2 - 3% 3 - 3 - 5% 5 -	TRACE OF ORGANIC MATTER LITTLE ORGANIC MATTER	SOILS SOILS		38 HX58 MX51 MN 15 MX25 MX38 MX35 MX35 MX35	# 40 30 MX
DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT	WEATHERING			`		GRANULAR SILT- MUCK,			
CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RIN AND EXPRESSED AS A PERCENTAGE.	COSTAL PARTIES CEMENTED INTO ROCK BUT HAY NOT YIELD SPIT REFUSAL, ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED	COASTAL PLAIN SEDIMENTARY ROCK SPT REFU	DUID LIMIT GREATER THAN 50		MODERATELY COMPRESSIBLE  HIGHLY COMPRESSIBLE	<b>//</b> :		000000	0000
E COLLUZION CATEGORIA SOLLO MILLO NOTALIA METERCIADALE AMBURIS DE CALCIUM CARBUMAIL.  E COLLUZION - ROCK FRAGMENTS MIXED MITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTON OF SLOPE.	COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN COARSE GRAIN MOULD YELLD SPT REFUSAL IF TESTED, ROCK TYPE DAY HOCK THAT WOULD YELLD SPT REFUSAL IF TESTED, ROCK TYPE	NON-CRYSTALLINE FINE TO SEDIMENT	TIMIT LEGG THAN 20	COMPRESSIBILITY	SI IGHTI Y COMPRI	7 A-1, A-2 A-		A-1-b A-2-4 A-2-5 A-2	P P
AT MHICH IS IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO DR ABOVE THE GROUND SURFACE.	COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT BIELD SPT REFUSAL IF TESTED, ROCK TYPE INCLUDES GRANITE, AARRO, SCHIST FTC	CRYSTALLINE FINE TO WOULD YI	W. ETC. ARE USED IN DESCRIPTIONS	MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAQLIN, ETC, WHENEVER THEY ARE CONSIDERED OF SIGNIFICANCE.	MINERAL NAMES SUCH AS QUENERAL NAMES ARE CONSIL	RIALS ORGANIC MATERIALS	SEX PASSING *700) (35X PASSING *700) ORG	GRANULAR MATERIALS (S5% PASSING #200)	GENERAL CLASS.
	NON-COASTAL PLAIN MATERIAL THAT YIELDS SPT N VALUES $\gt$ 100 BLOWS PER FOOT.	WEATHERED NON-COAS	TTION	21 001	SUBANGULAR, SUBROUNDED, OR ROUNDED,	RANGE PLATE	VER STIFF, 680 SOTY CLAY, MOST WITH MIERGEDEED THE SAMO LATCK, HERVE PLASTIC, A-7-6	VERY STIFF, GRAW SULTY CLAY, MOST	
	S FOLOWS:	OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVIDED 6	ARE DESIGNATED BY THE TERMS AND BE	ANGULARITY OF GRAINESS OF SOIL GRAINS ARE DESIGNATED BY	THE ANGLE ARITY OR ROLLING	IDNS GENERALLY SHALL INCLUDE: THER PERTINENT FACTORS SUCH C. FXAMPI F:	STEM AND BASIC DESCRIPTI TO CLASSIFICATION, AND OTI STRUCTURE, PLASTICITY, FTO	S BASED ON THE AASHTO SYS PR. TEXTURE, MOISTURE, AASH1 PR. TEXTURE, MOISTURE, AASH1	CLASSIFICATION IS CONSISTENCY, COLO AS MINERAL DGICAL
ALLUYUM (ALLUY.)- SOILS WHICH HAVE BEEN TRANSPORTED BY WATER.  ADUIFER - A WATER BEARING FORWATION OR STRATA.	IN ON-COSTAD MATCHASIAL FLAIR THICKIAL HAN TO MEN IESTEL MOLLA TIELL OF TERTSAL HA INFERREU ROCK LINE INDIGETES THE LEVEL AT WHICH NON-COSTAL PLAIN MATERIAL MOLLO TIELD ST REFUSAL, SET REUSAL IS PERETRATION BY A SPLIT SPOON SAMPLER EDUAL TO OR LESS THAN 01 FOOT FER 60 BLOWS. IN ON-COSTAD PLAIN MATERIAL THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPORTED TO A TIME	ROCK LINE INDICATES THE LEVEL AT WHICH, SPT REFUSAL IS PENETRATION BY A SPLIT IN NON-COASTAL PLAIN MATERIAL, THE TRA	MATELY THE SAME SIZE. (ALSO	UNIFORM: INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY POORLY GRADED  GAP-GRADED: INDICATES A MIXTURE OF UNIFORM PARTICLES OF TWO	UNIFORM INDICATES THAT POORLY GRADED  GAP-GRADED- INDICATES A	SOIL IS CONSIDERED TO BE THE UNCONSOLIDATED, SEMI-CONSOLIDATED OR MEATHERED EARTH MATERIALS MICH CAM BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND WHICH TELLOS LESS THAN 1808 BLOWS FER FOOT ACCORDING TO STANDARD PENETRATION TEST (AASHTO 1728, ASTM D-1586), SOIL	TED, SEMI-CONSOLIDATED OF US FLIGHT POWER AUGER, AN D PENETRATION TEST (AASH	ED TO BE THE UNCONSOLIDATED WITH A CONTINUOUS ACCORDING TO STANDARD	SOIL IS CONSIDER! WHICH CAN BE PEN 100 BLOWS PER FC
TERMS AND DEFINITIONS	ROCK DESCRIPTION	R(	EC EBON EINE TO COMPCE	GRADATION  GRADATION	WELL CRADED- INDICATES A		L DESCRIPTION	SOIL	
	ABBREVIATIONS	SYMBOLS, AND	ROCK LEGEND, TERMS,	SOIL AND I					
	Z	INVESTIGATION	SUBSURFACE	SI					
		ICAL UNIT	GEOTECHNICAL						
		OF HIGHWAYS	DIVISION O						
ID STATE PROJECT NO. SHEET NO. TOTAL SHEETS 112.1044010 2 49	ATION	TMENT OF TRANSPORTATION	CAROLINA DEPARTMENT	NORTH					

